#3

PCT10

ENTERED

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/049,745

DATE: 03/01/2002
TIME: 14:48:22

Input Set : A:\ippf0727usn.app.txt
Output Set: N:\CRF3\03012002\J049745.raw

```
     4 <110> APPLICANT: INCYTE GENOMICS, INC.
     5       YUE, Henry
     6       TANG, Y. Tom
     7       BANDMAN, Olga
     8       LAL, Preeti
     9       BAUGHN, Mariah R.
    10       AZIMZAI, Yalda
    11       LU, Dyung Aina M.
    12       YANG, Junming
    14 <120> TITLE OF INVENTION: PROTEASES AND PROTEASE INHIBITORS
    16 <130> FILE REFERENCE: PF-0727 PCT
C--> 18 <140> CURRENT APPLICATION NUMBER: US/10/049,745
C--> 19 <141> CURRENT FILING DATE: 2002-01-30
    21 <150> PRIOR APPLICATION NUMBER: 60/147,986; 60/160,807
W--> 22 <151> PRIOR FILING DATE: 1999-08-09; 1999-10-21
    24 <160> NUMBER OF SEQ ID NOS: 54
    25 <170> SOFTWARE: PERL Program
    27 <210> SEQ ID NO: 1
    28 <211> LENGTH: 444
    29 <212> TYPE: PRT
    30 <213> ORGANISM: Homo sapiens
    32 <220> FEATURE:
    33 <221> NAME/KEY: misc_feature
    34 <223> OTHER INFORMATION: Incyte ID No: 088718CD1
    36 <400> SEQUENCE: 1
    37 Met Lys Val Val Pro Ser Leu Leu Leu Ser Val Leu Leu Ala Gln
    38   1               5                  10                  15
    39 Val Trp Leu Val Pro Gly Leu Ala Pro Ser Pro Gln Ser Pro Glu
    40                  20                  25                  30
    41 Thr Pro Ala Pro Gln Asn Gln Thr Ser Arg Val Val Gln Ala Pro
    42                  35                  40                  45
    43 Arg Glu Glu Glu Glu Asp Glu Gln Glu Ala Ser Glu Glu Lys Ala
    44                  50                  55                  60
    45 Gly Glu Glu Glu Lys Ala Trp Leu Met Ala Ser Arg Gln Gln Leu
    46                  65                  70                  75
    47 Ala Lys Glu Thr Ser Asn Phe Gly Phe Ser Leu Leu Arg Lys Ile
    48                  80                  85                  90
    49 Ser Met Arg His Asp Gly Asn Met Val Phe Ser Pro Phe Gly Met
    50                  95                 100                 105
    51 Ser Leu Ala Met Thr Gly Leu Met Leu Gly Ala Thr Gly Pro Thr
    52                 110                 115                 120
    53 Glu Thr Gln Ile Lys Arg Gly Leu His Leu Gln Ala Leu Lys Pro
    54                 125                 130                 135
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55 Thr Lys Pro Gly Leu Leu Pro Ser Leu Phe Lys Gly Leu Arg Glu
56                 140                 145                 150
57 Thr Leu Ser Arg Asn Leu Glu Leu Gly Leu Ser Gln Gly Ser Phe
58                 155                 160                 165
59 Ala Phe Ile His Lys Asp Phe Asp Val Lys Glu Thr Phe Phe Asn
60                 170                 175                 180
61 Leu Ser Lys Arg Tyr Phe Asp Thr Glu Cys Val Pro Met Asn Phe
62                 185                 190                 195
63 Arg Asn Ala Ser Gln Ala Lys Arg Leu Met Asn His Tyr Ile Asn
64                 200                 205                 210
65 Lys Glu Thr Arg Gly Lys Ile Pro Lys Leu Phe Asp Glu Ile Asn
66                 215                 220                 225
67 Pro Glu Thr Lys Leu Ile Leu Val Asp Tyr Ile Leu Phe Lys Gly
68                 230                 235                 240
69 Lys Trp Leu Thr Pro Phe Asp Pro Val Phe Thr Glu Val Asp Thr
70                 245                 250                 255
71 Phe His Leu Asp Lys Tyr Lys Thr Ile Lys Val Pro Met Met Tyr
72                 260                 265                 270
73 Gly Ala Gly Lys Phe Ala Ser Thr Phe Asp Lys Asn Phe Arg Cys
74                 275                 280                 285
75 His Val Leu Lys Leu Pro Tyr Gln Gly Asn Ala Thr Met Leu Val
76                 290                 295                 300
77 Val Leu Met Glu Lys Met Gly Asp His Leu Ala Leu Glu Asp Tyr
78                 305                 310                 315
79 Leu Thr Thr Asp Leu Val Glu Thr Trp Leu Arg Asn Met Lys Thr
80                 320                 325                 330
81 Arg Asn Met Glu Val Phe Phe Pro Lys Phe Lys Leu Asp Gln Lys
82                 335                 340                 345
83 Tyr Glu Met His Glu Leu Leu Arg Gln Met Gly Ile Arg Arg Ile
84                 350                 355                 360
85 Phe Ser Pro Phe Ala Asp Leu Ser Glu Leu Ser Ala Thr Gly Arg
86                 365                 370                 375
87 Asn Leu Gln Val Ser Arg Val Leu Gln Arg Thr Val Ile Glu Val
88                 380                 385                 390
89 Asp Glu Arg Gly Thr Glu Ala Val Ala Gly Ile Leu Ser Glu Ile
90                 395                 400                 405
91 Thr Ala Tyr Ser Met Pro Pro Val Ile Lys Val Asp Arg Pro Phe
92                 410                 415                 420
93 His Phe Met Ile Tyr Glu Glu Thr Ser Gly Met Leu Leu Phe Leu
94                 425                 430                 435
95 Gly Arg Val Val Asn Pro Thr Leu Leu
96                 440
97 <210> SEQ ID NO: 2
98 <211> LENGTH: 565
99 <212> TYPE: PRT
100 <213> ORGANISM: Homo sapiens
102 <220> FEATURE:
103 <221> NAME/KEY: misc_feature
104 <223> OTHER INFORMATION: Incyte ID No: 114551CD1
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RAW SEQUENCE LISTING DATE: 03/01/2002
PATENT APPLICATION: **US/10/049,745** TIME: 14:48:22

Input Set : **A:\ippf0727usn.app.txt**
Output Set: **N:\CRF3\03012002\J049745.raw**

106 <400> SEQUENCE: 2
107 Met Ser Gly Arg Ser Lys Arg Glu Ser Arg Gly Ser Thr Arg Gly
108 1 5 10 15
109 Lys Arg Glu Ser Glu Ser Arg Gly Ser Ser Gly Arg Val Lys Arg
110 20 25 30
111 Glu Arg Asp Arg Glu Arg Glu Pro Glu Ala Ala Ser Ser Arg Gly
112 35 40 45
113 Ser Pro Val Arg Val Lys Arg Glu Phe Glu Pro Ala Ser Ala Arg
114 50 55 60
115 Glu Ala Pro Ala Ser Val Val Pro Phe Val Arg Val Lys Arg Glu
116 65 70 75
117 Arg Glu Val Asp Glu Asp Ser Glu Pro Glu Arg Glu Val Arg Ala
118 80 85 90
119 Lys Asn Gly Arg Val Asp Ser Glu Asp Arg Arg Ser Arg His Cys
120 95 100 105
121 Pro Tyr Leu Asp Thr Ile Asn Arg Ser Val Leu Asp Phe Asp Phe
122 110 115 120
123 Glu Lys Leu Cys Ser Ile Ser Leu Ser His Ile Asn Ala Tyr Ala
124 125 130 135
125 Cys Leu Val Cys Gly Lys Tyr Phe Gln Gly Arg Gly Leu Lys Ser
126 140 145 150
127 His Ala Tyr Ile His Ser Val Gln Phe Ser His His Val Phe Leu
128 155 160 165
129 Asn Leu His Thr Leu Lys Phe Tyr Cys Leu Pro Asp Asn Tyr Glu
130 170 175 180
131 Ile Ile Asp Ser Ser Leu Glu Asp Ile Thr Tyr Val Leu Lys Pro
132 185 190 195
133 Thr Phe Thr Lys Gln Gln Ile Ala Asn Leu Asp Lys Gln Ala Lys
134 200 205 210
135 Leu Ser Arg Ala Tyr Asp Gly Thr Thr Tyr Leu Pro Gly Ile Val
136 215 220 225
137 Gly Leu Asn Asn Ile Lys Ala Asn Asp Tyr Ala Asn Ala Val Leu
138 230 235 240
139 Gln Ala Leu Ser Asn Val Pro Pro Leu Arg Asn Tyr Phe Leu Glu
140 245 250 255
141 Glu Asp Asn Tyr Lys Asn Ile Lys Arg Pro Pro Gly Asp Ile Met
142 260 265 270
143 Phe Leu Leu Val Gln Arg Phe Gly Glu Leu Met Arg Lys Leu Trp
144 275 280 285
145 Asn Pro Arg Asn Phe Lys Ala His Val Ser Pro His Glu Met Leu
146 290 295 300
147 Gln Ala Val Val Leu Cys Ser Lys Lys Thr Phe Gln Ile Thr Lys
148 305 310 315
149 Gln Gly Asp Gly Val Asp Phe Leu Ser Trp Phe Leu Asn Ala Leu
150 320 325 330
151 His Ser Ala Leu Gly Gly Thr Lys Lys Lys Lys Lys Thr Ile Val
152 335 340 345
153 Thr Asp Val Phe Gln Gly Ser Met Arg Ile Phe Thr Lys Lys Leu
154 350 355 360

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Input Set : A:\ippf0727usn.app.txt
Output Set: N:\CRF3\03012002\J049745.raw

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155 Pro His Pro Asp Leu Pro Ala Glu Glu Lys Glu Gln Leu Leu His
156                 365                 370                 375
157 Asn Asp Glu Tyr Gln Glu Thr Met Val Glu Ser Thr Phe Met Tyr
158                 380                 385                 390
159 Leu Thr Leu Asp Leu Pro Thr Ala Pro Leu Tyr Lys Asp Glu Lys
160                 395                 400                 405
161 Glu Gln Leu Ile Ile Pro Gln Val Pro Leu Phe Asn Ile Leu Ala
162                 410                 415                 420
163 Lys Phe Asn Gly Ile Thr Glu Lys Glu Tyr Lys Thr Tyr Lys Glu
164                 425                 430                 435
165 Asn Phe Leu Lys Arg Phe Gln Leu Thr Lys Leu Pro Pro Tyr Leu
166                 440                 445                 450
167 Ile Phe Cys Ile Lys Arg Phe Thr Lys Asn Asn Phe Phe Val Glu
168                 455                 460                 465
169 Lys Asn Pro Thr Ile Val Asn Phe Pro Ile Thr Asn Val Asp Leu
170                 470                 475                 480
171 Arg Glu Tyr Leu Ser Glu Glu Val Gln Ala Val His Lys Asn Thr
172                 485                 490                 495
173 Thr Tyr Asp Leu Ile Ala Asn Ile Val His Asp Gly Lys Pro Ser
174                 500                 505                 510
175 Glu Gly Ser Tyr Arg Ile His Val Leu His His Gly Thr Gly Lys
176                 515                 520                 525
177 Trp Tyr Glu Leu Gln Asp Leu Gln Val Thr Asp Ile Leu Pro Gln
178                 530                 535                 540
179 Met Ile Thr Leu Ser Glu Ala Tyr Ile Gln Ile Trp Lys Arg Arg
180                 545                 550                 555
181 Asp Asn Asp Glu Thr Asn Gln Gln Gly Ala
182                 560                 565
183 <210> SEQ ID NO: 3
184 <211> LENGTH: 589
185 <212> TYPE: PRT
186 <213> ORGANISM: Homo sapiens
188 <220> FEATURE:
189 <221> NAME/KEY: misc_feature
190 <223> OTHER INFORMATION: Incyte ID No: 1261376CD1
192 <400> SEQUENCE: 3
193 Met Ala Glu Ser Gly Glu Ser Gly Gly Pro Pro Gly Ser Gln Asp
194   1               5                  10                  15
195 Ser Ala Ala Gly Ala Glu Gly Ala Gly Ala Pro Ala Ala Ala Ala
196                  20                  25                  30
197 Ser Ala Asp Ala Lys Ile Met Lys Val Thr Val Lys Thr Pro Lys
198                  35                  40                  45
199 Glu Lys Glu Glu Phe Ala Val Pro Glu Asn Ser Ser Val Gln Gln
200                  50                  55                  60
201 Phe Lys Glu Glu Ile Ser Lys Arg Phe Lys Ser His Thr Asp Gln
202                  65                  70                  75
203 Leu Val Leu Ile Phe Ala Gly Lys Ile Leu Lys Asp Gln Asp Thr
204                  80                  85                  90
205 Leu Ser Gln His Gly Ile His Asp Gly Leu Thr Val His Leu Val
```

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PATENT APPLICATION: US/10/049,745 TIME: 14:48:22

Input Set : A:\ippf0727usn.app.txt
Output Set: N:\CRF3\03012002\J049745.raw

```
206                  95                  100                 105
207 Ile Lys Thr Gln Asn Arg Pro Gln Asp His Ser Ala Gln Gln Thr
208                 110                 115                 120
209 Asn Thr Ala Gly Ser Asn Val Thr Thr Ser Ser Thr Pro Asn Ser
210                 125                 130                 135
211 Asn Ser Thr Ser Gly Ser Ala Thr Ser Asn Pro Phe Gly Leu Gly
212                 140                 145                 150
213 Gly Leu Gly Gly Leu Ala Gly Leu Ser Ser Leu Gly Leu Asn Thr
214                 155                 160                 165
215 Thr Asn Phe Ser Glu Leu Gln Ser Gln Met Gln Arg Gln Leu Leu
216                 170                 175                 180
217 Ser Asn Pro Glu Met Met Val Gln Ile Met Glu Asn Pro Phe Val
218                 185                 190                 195
219 Gln Ser Met Leu Ser Asn Pro Asp Leu Met Arg Gln Leu Ile Met
220                 200                 205                 210
221 Ala Asn Pro Gln Met Gln Gln Leu Ile Gln Arg Asn Pro Glu Ile
222                 215                 220                 225
223 Ser His Met Leu Asn Asn Pro Asp Ile Met Arg Gln Thr Leu Glu
224                 230                 235                 240
225 Leu Ala Arg Asn Pro Ala Met Met Gln Glu Met Met Arg Asn Gln
226                 245                 250                 255
227 Asp Arg Ala Leu Ser Asn Leu Glu Ser Ile Pro Gly Gly Tyr Asn
228                 260                 265                 270
229 Ala Leu Arg Arg Met Tyr Thr Asp Ile Gln Glu Pro Met Leu Ser
230                 275                 280                 285
231 Ala Ala Gln Glu Gln Phe Gly Gly Asn Pro Phe Ala Ser Leu Val
232                 290                 295                 300
233 Ser Asn Thr Ser Ser Gly Glu Gly Ser Gln Pro Ser Arg Thr Glu
234                 305                 310                 315
235 Asn Arg Asp Pro Leu Pro Asn Pro Trp Ala Pro Gln Thr Ser Gln
236                 320                 325                 330
237 Ser Ser Ser Ala Ser Ser Gly Thr Ala Ser Thr Val Gly Gly Thr
238                 335                 340                 345
239 Thr Gly Ser Thr Ala Ser Gly Thr Ser Gly Gln Ser Thr Thr Ala
240                 350                 355                 360
241 Pro Asn Leu Val Pro Gly Val Gly Ala Ser Met Phe Asn Thr Pro
242                 365                 370                 375
243 Gly Met Gln Ser Leu Leu Gln Gln Ile Thr Glu Asn Pro Gln Leu
244                 380                 385                 390
245 Met Gln Asn Met Leu Ser Ala Pro Tyr Met Arg Ser Met Met Gln
246                 395                 400                 405
247 Ser Leu Ser Gln Asn Pro Asp Leu Ala Ala Gln Met Met Leu Asn
248                 410                 415                 420
249 Asn Pro Leu Phe Ala Gly Asn Pro Gln Leu Gln Glu Gln Met Arg
250                 425                 430                 435
251 Gln Gln Leu Pro Thr Phe Leu Gln Gln Met Gln Asn Pro Asp Thr
252                 440                 445                 450
253 Leu Ser Ala Met Ser Asn Pro Arg Ala Met Gln Ala Leu Leu Gln
254                 455                 460                 465
```

Use of n and / or Xaa has been detected in the Sequence Listing. Review the Sequence Listing to ensure a corresponding explanation is present in the <220> to <223> fields of each sequence using n or Xaa.

VERIFICATION SUMMARY DATE: 03/01/2002
PATENT APPLICATION: **US/10/049,745** TIME: 14:48:23

Input Set : **A:\ippf0727usn.app.txt**
Output Set: **N:\CRF3\03012002\J049745.raw**

L:18 M:270 C: Current Application Number differs, Replaced Current Application Number
L:19 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:22 M:256 W: Invalid Numeric Header Field, Wrong Prior FILING DATE:YYYY-MM-DD
L:2401 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:42